

REMARKS

Claims remaining in the present patent application are numbered 8-10 and 12-15. Claims 8 and 15 have been amended. The rejections and comments of the Examiner set forth in the Office Action dated July 14, 2006 have been carefully considered by the Applicants. Applicants respectfully request the Examiner to consider and allow the remaining claims.

Claim Objections

The present Office Action objected to Claim 15 because Claim 15 is directed to a portion of Claim 1 which has been withdrawn. Applicants have herein amended Claim 15 such that a "second source column" is "located x columns of memory cells from said source column for reducing resistance . . ." That is, the second source column is located x columns from the "source column" initially disclosed in Claim 8. As such, Applicant respectfully asserts that the objection has been overcome. Applicant respectfully requests re-consideration of Claim 15.

35 U.S.C. §102 Rejection

The present Office Action rejected Claims 8-10, 12, and 13 under 35 U.S.C. 102(e) as being anticipated by Mehrad et al. (U.S. Patent No. 6,765,257). Applicants have reviewed

the above cited references and respectfully submit that the present invention as recited in Claims 8-10, 12, and 13, is neither anticipated nor rendered obvious by the Mehrad et al. reference.

Independent Claim 8

Applicants respectfully point out that independent Claim 8 recites that the present invention includes, in part:

a source contact coupled to said source column for providing electrical coupling with said plurality of source regions, said source contact located along a row of drain contacts coupled to drain regions of a row of memory cells that are arranged perpendicular to said source column, and wherein said source contact is of different dimension than each drain contact of said row of drain contacts. (Emphasis Added)

The present invention pertains to a semiconductor memory device that includes an array of flash memory cells with a source line column for coupling to a plurality of common source lines, wherein the contact to the source line column facilitates straight word lines. In particular, independent Claim 8 recites that the source contact is located along a row of drain contacts, and is of a different dimension as each of the row of drain contacts.

Applicants respectfully note that the Mehrad et al. reference does not teach nor suggest the present semiconductor memory device that includes a source contact

located along a row of drain contacts, wherein the source contact is of a different dimension than each drain contact of the row of drain contacts, as claimed in independent Claim 8 of the present invention.

In contrast to independent Claim 8 of the present invention, the Mehrad et al. reference, discloses FLASH EPROM cells in which an arsenic implant under the gate stack is performed in vertical source lines. The Mehrad et al. reference teaches that a source contact can be located in line with drain contacts. However, the Mehrad et al. reference specifically teaches that the source contact is of similar dimension as the drain contacts, as shown in Figure 1.

On the other hand, an embodiment of the present invention discloses a source contact that is coupled to the source column, wherein the source contact is located along a row of drain contacts. The present Application describes at least two embodiments for the dimension of the source contact. In one embodiment of the present invention, the source contact is of the same size and dimension as the drain contacts in the row of drain contacts. In another embodiment, *the source contact is of a different dimension than each drain contact of the row of drain contacts*, as claimed in independent Claim 8 of the present invention. (See page 8, lines 17-25 of the Specification). In

particular, the embodiment of independent Claim 8 discloses a source contact that is of a different dimension than each drain contact in the row of drain contacts, and is distinct from the teachings of the Mehrad et al. reference in which the source contact is of similar dimension as each of the drain contacts, as shown in Figure 1.

Thus, Applicants respectfully submit that the present invention as disclosed in independent Claim 8 is not anticipated by the Mehrad et al. reference, and is in a condition for allowance. In addition, Applicants respectfully submit that Claims 9, 10, and 12-15 which depend from independent Claim 8 are also in a condition for allowance as being dependent on an allowable base claim.

35 U.S.C. §103 Rejection

The present Office Action rejected Claims 14 and 15 under 35 U.S.C. 103(a) as being unpatentable over Mehrad et al. Applicants have reviewed the above cited reference and respectfully submit that the present invention as recited in Claims 14 and 15 is neither anticipated nor rendered obvious by the Mehrad et al. reference.

Applicants respectfully submit that the present invention as disclosed in dependent Claims 14 and 15 is not anticipated or rendered obvious by the Mehrad et al.

reference since the claims depend on allowable base Claim 8, as previously discussed. In particular, the Mehrad et al. reference does not teach that the source contact is of different dimension than each drain contact of the row of drain contacts. As such, dependent Claims 14 and 15 are in a condition for allowance as being dependent on allowable base Claim 8.

CONCLUSION

In light of the amendments and arguments presented herein, Applicants respectfully request reconsideration of the rejected Claims for allowance thereof.

Based on the arguments presented above, Applicants respectfully assert that Claims 8-10 and 12-15 overcome the rejections of record. Therefore, Applicants respectfully solicit allowance of these Claims.

The Examiner is invited to contact Applicants' undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

Wagner, Murabito & Hao LLP

Date: 10/16/06

  
\_\_\_\_\_  
James P. Hao  
Reg. No.: 36,398  
Two North Market Street  
Third Floor  
San Jose, California 95113